Little Rock School District

2012-13 Grade 3 Mathematics Curriculum Map
Common Core State Standards (CCSS)

Unit 1

Curriculum Overview

Unit 1 *Aug 20-Sept 14 (19 days)*	Unit 2 *Sept 17-Oct 12 (20 days)*	Unit 3 *Oct 15-Nov 20 (23 days)*	Unit 4 *Nov 26-Jan 11 (23 days)*	Unit 5 *Jan 14-Feb 8 (19 days)*	Unit 6 *Feb 11-Mar 15 (23 days)*	Unit 7 *Mar 25-Apr 5 (9 days)*	Unit 8 *Apr 8-June 5 (37 days)*
Numbers and Operations in Base Ten	**Operations and Algebraic Thinking: The Relationship between Multiplication and Division**	**Operations and Algebraic Thinking: The Properties of Multiplication and Division**	**Operations and Algebraic Thinking: Patterns in Addition and Multiplication**	**Geometry**	**Numbers and Operations- Fractions: Representing and Comparing Fractions**	**Measurement and Data**	**Gap Lessons for Fourth Grade**
		SOAR Oct 17-18	SOAR Dec 12-13		SOAR Feb 27-28		ACTAAP April 8-12
○ **3.NBT.1** ○ **3.NBT.2** ○ **3.NBT.3** ● **3.MD.3** ● **3.MD.4**	★ **3.OA.1** ★ **3.OA.2** ★ **3.OA.3** ★ **3.OA.4** ● **3.MD.3** ● **3.MD.4**	★ **3.OA.5** ★ **3.OA.6** ★ **3.OA.7** ● **3.MD.3** ● **3.MD.4**	★ **3.OA.8** ★ **3.OA.9** ● **3.MD.4** ● **3.MD.5** ★ **3.MD.6** ★ **3.MD.7**	● **3.G.1** ● **3.G.2** ● **3.MD.3** ● **3.MD.4**	★ **3NF.1** ★ **3NF.2** ★ **3NF.3** ● **3.MD.3** ● **3.MD.4**	★ **3.MD.1** ★ **3.MD.2** ● **3.MD.3** ● **3.MD.4** ★ **3.MD.7** ○ **3.MD.8**	

Standards for Mathematical Practice should be included in ***every unit*** throughout the year.

OA=Operations and Algebraic Thinking, **NBT**=Number and Operations in Base Ten, **NF**=Number and Operations, Fractions, **G**=Geometry, **MD**=Measurement and Data

★ **Major Standard** ● **Supporting Standard** ○ **Additional Standard**

Aug 20-Sept 14 (19 days)	Unit 1 Use place value understanding and properties of operations to perform multi-digit arithmetic	
	CONTENT STANDARDS	PRACTICE STANDARDS
	DOMAIN – NUMBER AND OPERATIONS IN BASE TEN (3.NBT)	*Practice standards are embedded in every lesson throughout the curriculum, although not every practice will be found in every lesson. Numbers 1 and 6 should be evident in every lesson, and the other practices should be embedded as is appropriate to the lesson content and structure.* 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively 3. Construct viable arguments and critique the reasoning of others 4. Model with mathematics 5. Use appropriate tools strategically 6. Attend to precision 7. Look for and make use of structure 8. Look for and express regularity in repeated reasoning Categorizing the Practice Standards Habits of Mind 1 and 6 Reasoning/Explaining 2 and 3 Modeling/Using Tools 4 and 5 Structure/Generalizing 7 and 8
CLUSTER	Using place value understanding & properties to perform multi-digit arithmetic 3.NBT.1 3.NBT.2 3.NBT.3	1. Use place value understanding to round whole numbers to the nearest 10 or 100. 2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and /or the relationship between addition and subtraction. 3. Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9 x 80, 5 x 60) using strategies based on place value and properties of operations.
Aug 20-Sept 14 (19 days)	Unit 1 Represent and interpret data	
	DOMAIN – MEASUREMENT AND DATA	
CLUSTER	Represent and interpret data 3.MD.3 3.MD.4	3. Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. *For example, draw a bar graph in which each square in the bar graph might represent 5 pets.* 4. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units – whole numbers, halves, or quarters.

	Rationale	Instructional Strategies	Essential Questions	Background
Aug 20-Sept 14 (19 days)	Read-Alouds	**WORKSHOP MODEL OF INSTRUCTION**		Vocabulary

Warm Up	WORKTIME Lessons	CLOSURE Choices
Number Talks: **Addition** Weeks 1-3 Weeks 4-6 Week 7-10 http://lrsd3rdgrademathmap2012-13.wikispaces.com/file/view/Number+Talks.pdf Thinking Devices: Search Teacher Tube and other teacher friendly sites for related videos • Quick Estimation: List a series of numbers on the board and have students quickly try to find the answer using estimation. Ex. Find the answer to the nearest hundred 539 + 682	**BUILD in time to create RITUALS and ROUTINES as a class.** **Lesson 1:** Have students solve problems using their many strategies. Remember if you need to adapt your lessons you may manipulate the numbers to fit the needs of your students. Here is an example of how this can be done *(change the numbers and names to match the needs of your students):* Problem Types – Addition/Subtraction Situations It is important to work with students on all addition and subtraction problem-types. Start-unknown and compare problems are usually the most difficult for students. Use smaller numbers when first giving students these problem-types. *Example:* Lucy has an aquarium with 212 fish. (add to, result unknown) She wants to buy 68 more fish. How many fish would Lucy have then? - Lucy has 212 fish. How many more fish does she need to buy to have 280 fish? (add to, change unknown) - Lucy had some fish. (add to, start unknown) Her mom bought her 68 more fish. Now she has 280 fish. How many fish did Lucy have to start with? **Lesson 2:** Teach Game of Circles and Stars This game will help students to begin see multiplication as equal groups. They should play this often. Use one die in the beginning. Differentiate for students as needed. Students should explain what each number means. **Lesson 3 :** Teach Close to 100 (See Wiki for directions/ resource) The math: place value and structure of the base 10 number system	Closure options ▪ Gallery walk ▪ Student Discussion Open-ended Questions/Talk Moves ▪ Unit Question Bank ▪ Talk Moves Journal Prompts ▪ Unit Journal Prompt Suggestions Exit Ticket Ideas ▪ 'Say Why' ▪ Estimation task

+ 459= 1700 Dot Cards http://lrsd3rdgrademathmap2012-13.wikispaces.com/file/view/Dot+Cards+Large+2+Per+Page.pdf	**Lesson 4:** Present a **non-routine problem** to your class. Differentiate with the numbers below. Practice standard: Making sense of problems and persevere in solving them Myra has 23 blocks. She put the same number in each of two boxes and had 7 left. How many did she put in each box? (9, 1) (31, 7) (45, 9) **Lesson 5:** Partner Games with Circles and Stars and/or Close to 100 Marilyn Burns Interview – assess students to see their understanding of mathematics to help with future instructional decisions. Make sure appropriate tools are available **Lesson 6:** Problem-types – multiplying one and two digit by 10; The math: Analyze the structure of what is occurring. Use base 10 blocks or grid paper of arrays to make sense of the structure. Discuss what is happening. • Carla has 3 boxes of crayons. There are 10 crayons in each box. How many crayons does Carla have all together? (3, 20) (5, 10) (5, 20) (5, 30) **Lesson 7:** Hundreds Board (See Wiki for directions/resources) The math: place value and structure of the base 10 number system http://lrsd3rdgrademathmap2012-13.wikispaces.com/file/view/Hundreds+Board+Activities.pdf **Lesson 8 :** The Island Hop (See Georgia Resources from the Wiki) pp. 14-17 http://lrsd3rdgrademathmap2012-13.wikispaces.com/file/view/Unit+1+Georgia+Resources.pdf **Lesson 9 :** Shake, Rattle, and Roll (See Georgia Resources from the Wiki) pp. 18-23 http://lrsd3rdgrademathmap2012-13.wikispaces.com/file/view/Unit+1+Georgia+Resources.pdf **Lesson 10:** Work stations or Partner Games - – be sure all students have been assessed. Choices: Close to 100 * Circles and Starts* Shake, Rattle, and Roll* Hundreds Boards * Teacher may pull small groups or observe and record on this day. ***Don't forget closure!*** **Lesson 11:** How Many Tens pp. 81-84 http://lrsd3rdgrademathmap2012-13.wikispaces.com/file/view/Unit+1+Georgia+Resources.pdf -	

Lesson 12: The Great Round Up (See Georgia Resources from the Wiki) pp. 24-26
http://lrsd3rdgrademathmap2012-13.wikispaces.com/file/view/Unit+1+Georgia+Resources.pdf

Lesson 13 : The Power of Properties (See Georgia Resources from the Wiki) pp. 49-53
http://lrsd3rdgrademathmap2012-13.wikispaces.com/file/view/Unit+1+Georgia+Resources.pdf

Lesson 14: Harcourt Math TE Ch. 16 (Volume 2): "Alternative Teaching Strategy" p.322B (pictograph) AND "Reading Strategy" p. 322B (creating pictograph from data)

Lesson 15: Work stations or Partner Games / Teacher Choice – be sure all students have been assessed. If so, teacher may pull small groups or observe and record on this day. Don't forget closure!

Lesson 16: Present the following problems:

- Sitka put seven pencils in each of three cases and had nine left. How many pencils did she have to start with?

- Wan has 74 blocks. He put the same number in each of three boxes and had 9 left. How many did he put in each box?

Lesson 17: Math Squares – pages 1-6 This is practice for addition and subtraction and/or missing addend. Only give students one page at a time. Others can be used for homework and for work stations.

Lesson 18: Oh No! 99!! Fluency with numbers to 100
http://lrsd3rdgrademathmap2012-13.wikispaces.com/file/view/Oh+No+99.pdf

Lesson 19: Multiples of Ten (See Georgia Resources from the Wiki pp. 78-79
http://lrsd3rdgrademathmap2012-13.wikispaces.com/file/view/Unit+1+Georgia+Resources.pdf

OTHER RESOURCES		
ASSESSMENT	INTERVENTIONS	HOMEWORK IDEAS
Formative-NBT Formative-MD Harcourt Performance Task Unit 1 Task B Directions on PA1 Task on PA4 Rubric is on PA2 Summative - NBT Summative - MD Harcourt Performance Task Unit 1 Task A Directions on PA1 Task on PA3 Rubric is on PA2	▪ http://lrsd3rdgrademathmap2012-13.wikispaces.com/file/view/Number+Bonds.pdf ▪ http://lrsd3rdgrademathmap2012-13.wikispaces.com/file/view/Open+Number+Sentences+-+Math+Squares.pdf Composing and Decomposing to 19 (See Wiki for resource) **(Intervention Lesson)** http://lrsd3rdgrademathmap2012-13.wikispaces.com/file/view/Composing+and+Decomposing+Numbers+to+19.pdf	▪ http://lrsd3rdgrademathmap2012-13.wikispaces.com/file/view/Unit+1+Homework.doc Two Ways – addition and subtraction practice (Be sure to work one of these with the class before sending home for practice.)